

State of California • State and Consumer Services Agency • Gray Davis, Governor

DEPARTMENT OF GENERAL SERVICES

Executive Office

The Ziggurat • 707 Third Street, Eighth Floor • PO Box 989052 • West Sacramento, CA 95798-9052 • (916) 376-5000

May 29, 2002

The Honorable Steve Peace, Chair Joint Legislative Budget Committee State Capitol, Room 3060 Sacramento, CA 95814

Dear Senator Peace:

Senate Bill 5 (Chapter 7, Statutes of 2001, First Extraordinary Session) requires the Department of General Services (DGS) to submit quarterly reports to the Legislature and to the Governor on the \$40 million appropriated to the DGS for energy efficiency projects in state buildings and community colleges. The attached report entitled "Energy Efficiency Projects – SB 5X Legislative Report" fulfills this requirement.

The report includes the amount of funding committed; the measures, programs, or activities that have been undertaken; and a description of the effectiveness of the measures, programs, or activities in reducing peak electricity demand and improving energy efficiency as measured in kilowatt hours of electricity reduced per dollar expended.

The entire \$40 million appropriation for energy projects has been committed. A breakdown of the fund allocation is provided below:

- \$35.9 million has been committed for projects at 29 state facilities and community colleges;
- \$3.6 million has been allocated for investment grade audits at 63 additional facilities; and
- \$516,246 has been placed in a reserve contingency account to address unanticipated costs that may be realized during a project's development and construction (e.g. asbestos discovery and associated remediation).

The 29 financed energy projects are currently in the construction phase. These projects are expected to generate over \$4.8 million per year in energy savings, conserve 32,786 megawatt hours annually, and reduce peak load demand by eight megawatts. The average simple payback period for these projects is 7.4 years.

If you need further information or assistance, you may wish to have your staff contact Randy Ferguson, Program Director, Energy Management Office, Department of General Services, at 445-7656.

Very truly yours,

Clothilde V. Hewlett, Interim Director Department of General Services

CVH:cm

Attachment

cc: See attached Distribution List #8

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Originating Office

SB X1 5--REVISED 03/11/02



Energy Efficiency Projects - SB 5X Legislative Report

March 31, 2002

ENERGY MANAGEMENT OFFICE 717 K Street, Suite 409 Sacramento, CA 95814 (916) 323-8777

PROJECTS IN CONSTRUCTION

Project Description / Measures	Projected On-Line Date	Project Cost	Annual Energy Savings / <u>Dollars</u>	kW Savings	Annual kWh <u>Savings</u>	Annual Therm Savings	Annual Water <u>Savings</u>	<u>kWh / \$</u> *
CCD, Cypress Community College								
Lighting - T-8 Lamps, Electronic Ballasts	11/19/2002	\$646,933	\$140,802	343	1,236,364	0	\$0	28.67
HVAC - Boiler Replacements	10/10/2002	\$652,203	\$87,480	0	14,368	61,357	\$0	0.44
EMS - Energy Management Control System	4/26/2003	\$448,719		0	515,454	10,857	\$0	17.23
	-	\$1,747,855	\$300,182	343	1,766,186	72,214	\$0	16.63
CCD, Fullerton College								
Lighting - T-8 Lamps, Electronic Ballasts	9/26/2002	\$707,149	\$143,377	320	1,262,700	0	\$0	26.78
EMS - Replace and Expand Energy Management Control System	2/26/2003	\$429,324	\$73,095	91	664,500	0	\$0	23.22
Other - TES Installation, Boiler Replacements	3/26/2003	\$1,128,332	\$169,195	250	761,772	58,500	\$0	13.50
	-	\$2,264,805	\$385,667	661	2,688,972	58,500	\$0	20.41
CCD, Mt. San Jacinto College								
Lighting - T-8 Lamps, Electronic Ballasts	10/31/2002	\$76,076	\$25,410	47	140,000	0	\$0	27.60
HVAC - Zone Controls, Efficiency Motors	4/1/2003	\$286,967	\$65,522	137	361,000		\$0	25.16
EMS - Upgrade Energy Management Control System, Replace Points	9/22/2002	\$386,817	\$104,865	326	530,000	0	\$8,670	20.55
and opposite analysis management control system, respector control	-	\$749,860	\$195,797	510	1,031,000	0		22.92
CCD, Ohlone College								
,	8/23/2002	£40.40¢	CC 404	0	90,200	0	\$0	400.04
Lighting - Motion Detectors EMS - Irrigation Control System	1/22/2002	\$10,496 \$23,316	\$6,494 \$5,000	0	90,200	-	\$5,000	128.91 N/A
Water - Occupancy Sensors for Sinks and Flush Valves	6/17/2002	\$39,218		0	0			N/A N/A
value - Occupancy occisors for online and rident valves	0/1//2002	\$73,030	\$16,494	0	90,200		1 - 1	128.91
CDC, Calipatria State Prison Lighting - Fluorescent / Incandescent Fixtures, LED Exit Signs	4/0/0000	0004 400	#00.000	000	4 004 004			00.40
, ,	1/2/2003	\$881,432		263	1,321,601 7,996,863	0	\$0 \$0	22.49
HVAC - Cooling Towers, Pump Motors, VFDs, TES, EMS Expansion, Fans	4/30/2004	\$4,236,749 \$5,118,181	\$613,429 \$703,029	1,890 2,153	9,318,464	0		33.97 32.08
	-	\$5,110,101	\$703,029	2,153	9,310,404		ΨU	32.00
CDC, Ironwood State Prison Project								
Lighting - T8 Lamps, Electronic Ballasts, Exit Lamps, Occupancy Sensors	1/3/2003	\$1,361,551	\$251,519	2,180	2,114,195	0	0	23.29
HVAC - Motor Replacements	7/17/2002	\$573,690	\$62,012	40	648,000	0		22.59
	-	\$1,935,241	\$313,531	2,220	2,762,195	0	\$0	22.82
CDC, Susanville Gas Line Project								
Other - Gas Dist. System, Boilers, Propane Appl. Conv., Thermal Dist. System	7/29/2002	\$2,078,420	\$324,889	0	0	2,641,373	\$0	N/A
	- -	\$2,078,420	\$324,889	0	0	2,641,373	\$0	N/A
CYA, DeWitt Nelson Youth Correctional Facility								
Lighting - T8 Lamps, Electronic Ballasts	3/15/2002	\$118,913	\$21,248	16	118,042	0	\$0	14.89
	-	\$118,913	\$21,248	16	118,042	0	\$0	14.89

Project Description / Measures	Projected On-Line Date	Project Cost	Annual Energy Savings / <u>Dollars</u>	kW Savings	Annual kWh <u>Savings</u>	Annual Therm Savings	Annual Water <u>Savings</u>	<u>kWh / \$</u> *
CYA, El Paso De Robles School	6/28/2002	\$227,029	\$47,905	21	228,120	0	\$0	45.07
Lighting - T8 Lamps, Electronic Ballasts	6/28/2002	\$227,029 \$227,029	\$47,905 \$47,905	31 31	228,120	0		15.07 15.07
CYA, Fred C. Nelles School (Whittier)								
Lighting - T8 Lamps, Electronic Ballasts	6/28/2002	\$381,143 \$381,143		33 33	242,578 242,578	0	•	9.55 9.55
OVA Harmon Ovad Venth Training Only a (Ohion)	•	+ + + + + + + + + + + + + + + + + + + 	V.1.,000				***	
CYA, Herman Stark Youth Training School (Chino) Lighting - T8 Lamps, Electronic Ballasts	6/28/2002	\$401,110	\$72,103	47	343,348	0	\$0	12.84
		\$401,110	\$72,103	47	343,348	0	\$0	12.84
CYA, Karl Holton, Drug/Alch Treament Facility								
Lighting - T8 Lamps, Electronic Ballasts	4/5/2002	\$95,383 \$95,383	\$39,294 \$39,294	24 24	179,412 179,412	0		28.21 28.21
CYA, Northern Calif. Correctional Reception Center & Clinic	•	, , , , , , , , , , , , , , , , , , , ,	, .			·		
Lighting - T8 Lamps, Electronic Ballasts	11/30/2001	\$235,675	\$18,627	12	120,174	0	\$0	7.65
		\$235,675	\$18,627	12	120,174	0	\$0	7.65
CYA, O.H. Close Youth Correctional Facility								
Lighting - T8 Lamps, Electronic Ballasts	4/26/2002	\$92,291 \$92,291	\$42,495 \$42,495	32 32	236,084 236,084	0 0	•	38.37 38.37
CYA, Preston School of Industry (Ione)								,
Lighting - T8 Lamps, Electronic Ballasts	2/22/2002	\$419,013		29	212,682			7.61
		\$419,013	\$32,966	29	212,682	0	\$0	7.61
CYA, South Reception Center (Norwalk)	6/20/2002	\$225.6 7 5	600 554	10	100 174	0	60	7.05
Lighting - T8 Lamps, Electronic Ballasts	6/28/2002	\$235,675 \$235,675		16 16	120,174 120,174	0 0	•	7.65 7.65
CYA, Ventura School (Camarillo)								
Lighting - T8 Lamps, Electronic Ballasts	6/28/2002	\$320,651	\$49,453	29	215,011	0	•	10.06
		\$320,651	\$49,453	29	215,011	0	\$0	10.06
DGS, Justice Building Project Lighting - T8 Lamps, Electronic Ballasts	8/9/2002	\$295,342	\$29,238	59	295,338	0	\$0	15.00
HVAC - Chiller, VSDs	12/18/2002	\$749,106		58	1,106,513	0		29.54
EMS - Hardware and Software	12/18/2002	\$433,629 \$1,478,077	\$84,829 \$223,612	170 287	732,691 2,134,542	24,294 24,294		25.35 25.20
	•	V 1, 11 O , U 1			2,101,012	,		
DGS, Energy Commission Building Project Lighting - Lighting and Lighting Control Systems	3/12/2002	\$178,668	\$20,909	0	209,093	0	\$0	17.55
		\$178,668	\$20,909	0	209,093	0	\$0	17.55
DGS, Fresno Office Project								
Lighting - T8 Lamps, Electronic Ballasts, Occupancy Sensors HVAC - VSDs on Chiller and Pumps, Control System Modifications	1/6/2003 2/20/2002	\$218,517 \$269,925		49 38	214,992 165,805			14.76 11.06
1 250 on orinnor and ramps, control cyclem mountainers	2,20,2002	\$488,442		87	380,797	0		12.71
DGS, Franchise Tax Board Phase II Project								
Other - Photo Voltaic Installation	7/29/2002	\$1,564,400		184	803,940	0		12.85
		\$1,564,400	\$88,433	184	803,940	0	\$0	12.85

Project Description / Measures	Projected On-Line Date	Project Cost	Annual Energy Savings / <u>Dollars</u>	kW Savings	Annual kWh Savings	Annual Therm Savings	Annual Water Savings	<u>kWh / \$</u> *
DGS, Franchise Tax Board								
Lighting - HID and Fluorescent Lighting	6/4/2002	\$577,055	\$149,376	387	1,508,847	0	·	39.22
	-	\$577,055	\$149,376	387	1,508,847	0	\$0	39.22
DGS, Library Courts Bldg II Project								
Lighting - T8 Lamps, Electronic Ballasts, Reflectors	3/8/2002	\$153,460	\$23,210	73	401,873	0	\$0	39.28
Eighting To Earlips, Elocitorio Ballacto, Noncotoro	0/0/2002	\$153,460	\$23,210	73	401,873	0		39.28
	-	******			,		**	
DGS, Santa Rosa State Office								
HVAC -Motors, VFDs, Air Handler Units	8/5/2002	\$145,652	\$19,293	23	117,439	1,058	\$0	12.09
Water - Domestic Hot Water Controls	7/8/2002	\$716	\$170	0	1,206	37	\$0	16.84
	-	\$146,368	\$19,463	23	118,645	1,095	\$0	12.12
DGS, Van Nuys Office Project								
HVAC - VSDs for CHW, CW Pumps, CT Fans, CO Controls	8/6/2002	\$335,643	\$29,627	4	246,014	7,013	\$0	13.19
EMS - Energy Management Control System / DDC Controls	2/13/2002	\$99,507	\$19,670	0	167,020	4,062	\$0	25.18
zino zinolgy managomont control cyclom/ 220 controls		\$435,150	\$49,297	4	413,034	11,075	\$0	15.95
DMH, Atascadero State Hospital Project	4/45/0004	*****	****	7.0	5 000 400	101.000	••	
HVAC - Chiller / Boiler Replacement, Motors, Pumps, Deposit Control System	1/15/2004	\$4,901,000 \$4,901,000	\$620,276 \$620,276	740 740	5,089,160	-161,986 - 161,986	\$0 \$0	20.77 20.77
	-	\$4,901,000	\$620,276	740	5,089,160	-161,986	\$0	20.77
DMH, Patton State Hospital Project								
HVAC - Boiler Replacement	11/19/2003	\$7,052,872	\$639,039	54	398,932	698,666	\$0	1.13
·	-	\$7,052,872	\$639,039	54	398,932	698,666	\$0	1.13
DMII Better Otate Henry tel Blace II								
DMH, Patton State Hospital Phase II HVAC - Motors. VFDs	7/22/2003	\$152.763	\$23.826	0	158.731	0	\$0	20.78
EMS - New EMS System	7/22/2003	\$1,878,659	\$23,820	0	1,148,713	88,675		9.17
Other - Pumping System	7/22/2003	\$353,798	\$36,048	0	240,160	00,073	\$0	12.22
	.,,_	\$2,385,220	\$304,983	0	1,547,604	88,675	\$0	10.22
	-	,	,		· •	· ·		
DPR, Hearst Castle Lighting Retrofit								
Lighting - Lighting Retrofit	10/14/2003	\$59,970	\$10,743	32	107,428	0		26.87
	-	\$59,970	\$10,743	32	107,428	0	\$0	26.87
Total of Projects in Construction	-	\$35,914,957	\$4,837,190	8,027	32,786,537	3,433,906	\$18,670	15.91

AUDITS

Project Description		<u>Audits</u>
ARB, Haagen-Smit Laboratory	\$	3,000
ARB, Headquarters	\$	2,000
CC, Bakersfield College	\$	6,936
CC, Copper Mountain College	\$	962
CC, LA Harbor College	\$	3,954
CC, Long Beach City College	\$	16,302
CC, Merced College	\$	7,315
CC, West Hills College CC, West Valley College	\$ \$	4,685 4,692
CDC, California State Prison (Represa, New Folsom)	\$	139,259
CDC, Chuckwalla	\$	89.006
CDC, Correctional Training Facility (Soledad)	\$	91,088
CDC, CSP-LA County	\$	88,431
CDC, Deuel Vocational Institute (Tracy)	\$	113,908
CDC, Galt Training Center (Galt)	\$	52,261
CDC, Mule Creek State Prison (Ione)	\$	165,732
CDC, North Kern State Prison	\$	101,732
CDC, Salinas Valley State Prison - Soledad II	\$	42,164
CDC, San Quentin State Prison	\$	6,754
CDE, School For The Deaf (Riverside)	\$	91,168
CHP, Academy / Administrative Offices	\$	40,568
CHP, Vallejo	\$	42,127
DDS, Canyon Springs	\$	3,000
DDS, Porterville Developmental Center	\$	5,800
DGS, Bateson Building	\$	51,481
DGS, Board of Equalization	<u>\$</u>	48,043
DGS, DWR Fresno Annex DGS, EDD Annex	\$ \$	24,365 54,686
DGS, EDD Headquarters	\$	11,127
DGS, Edmund G. Brown Building (aka PUC)	\$	90,803
DGS, Education Building	\$	20.056
DGS, Elihu Harris Building (Oakland)	\$	151,165
DGS, Heating & Cooling Plant	\$	174,548
DGS, Junipero Serra Office (Los Angeles)	\$	78,390
DGS, Legislative Office Building	\$	46,463
DGS, Library & Courts Building I	\$	3,000
DGS, Mission Valley Building (San Diego)	\$	21,527
DGS, Personnel Building	\$	29,298
DGS, Red Bluff State Building	\$	6,575
DGS, Redding State Building	\$	6,575
DGS, Resources Building	\$	87,845
DGS, Ronald Reagan Building (Los Angeles)	\$	245,172
DGS, San Diego Office	\$	26,643
DGS, San Francisco Civic Center	\$ \$	118,008 24,788
DGS, San Jose State Office DGS, Santa Ana State Office	\$	32.573
DGS, Secretary of State Building (State Archives)	\$	51,571
DGS, State Capitol	\$	67,216
DGS, State Printing Plant	\$	48,832
DGS, Stockton State Building	\$	49,634
DMH, Metropolitan State Hospital	\$	240,689
DMH, Napa State Hospital - HVAC / Cogen	\$	116,290
DMV, Los Angeles (Hope)	\$	13,074
DMV, Sacramento (2415 / 2490 First)	\$	98,376
DMV, Sacramento (4700 Broadway)	\$	11,894
DSS, Dept. of Social Services (Fresno)	\$	18,110
DVA, Barstow Veterans Home	\$	79,816

RESERVE CONTINGENCY ACCOUNT

<u>Description</u> <u>Amount</u>

Reserve Contingency Account \$ 516,246

GRAND TOTAL \$40,000,000

(INCLUDES CONSTRUCTION, AUDITS AND RESERVE CONTINGENCY ACCOUNT)

CYA project information is provided by CYA.

EMD's energy savings calculations are based upon engineering estimates.

^{* ((}Annual kWh Savings * Asset Life)/Project Cost) - Does not account for savings associated with natural gas and water.